

2/9/04

09/700, 462

=> d 113 bib abs 1-3

L13 ANSWER 1 OF 3 USPATFULL on STN
 AN 2003:273357 USPATFULL
 TI Manipulation of microparticles in microfluidic systems
 IN Mehta, Tammy Burd, San Jose, CA, United States
 Kopf-Sill, Anne R., Portola Valley, CA, United States
 Parce, J. Wallace, Palo Alto, CA, United States
 Chow, Andrea W., Los Altos, CA, United States
 Bousse, Luc J., Los Altos, CA, United States
 Knapp, Michael R., Redwood City, CA, United States
 Nikiforov, Theo T., San Jose, CA, United States
 Gallagher, Steve, Palo Alto, CA, United States
 PA Caliper Technologies Corp., Mountain View, CA, United States (U.S. corporation)
 PI US 6632655 B1 20031014
 AI US 2000-510626 20000222 (9)
 PRAI US 1999-128643P 19990409 (60)
 US 1999-127825P 19990405 (60)
 US 1999-121223P 19990223 (60)
 DT Utility
 FS GRANTED
 EXNAM Primary Examiner: Ponnaluri, Padmashri; Assistant Examiner: Tran, My Chau T
 LREP Quine Intellectual Property Law Group, P.C., Murphy, Matthew B., McKenna, Donald R.
 CLMN Number of Claims: 71
 ECL Exemplary Claim: 1
 DRWN 28 Drawing Figure(s); 19 Drawing Page(s)
 LN.CNT 4515
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Arrays of flowable or fixed particle sets are used in microfluidic systems for performing assays and modifying hydrodynamic flow. Also provided are assays utilizing flowable or fixed particle sets within a microfluidic system, as well as kits, apparatus and integrated systems comprising arrays and array members.
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 2 OF 3 USPATFULL on STN
 AN 2003:112863 USPATFULL
 TI Methods and compositions for enhancing sensitivity in the analysis of biological-based assays
 IN Van Ness, Jeffrey, Seattle, WA, UNITED STATES
 Tabone, John C., Bothell, CA, UNITED STATES
 Howbert, J. Jeffry, Bellevue, WA, UNITED STATES
 Mulligan, John T., Seattle, WA, UNITED STATES
 PA QIAGEN Genomics, Inc., Bothell, WA (U.S. corporation)
 PI US 2003077595 A1 20030424
 AI US 2001-467 A1 20011024 (10)
 RLI Continuation of Ser. No. US 1999-457048, filed on 7 Dec 1999, ABANDONED
 Continuation of Ser. No. US 1997-898501, filed on 22 Jul 1997, GRANTED,
 Pat. No. US 6027890 Continuation-in-part of Ser. No. US 1997-787521,
 filed on 22 Jan 1997, ABANDONED
 PRAI US 1996-10436P 19960123 (60)
 US 1996-15402P 19960321 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

09567863

CLMN Number of Claims: 61
ECL Exemplary Claim: 1
DRWN 36 Drawing Page(s)
LN.CNT 5954

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods are provided for detecting the binding of a first member to a second member of a ligand pair, comprising the steps of (a) combining a set of first tagged members with a biological sample which may contain one or more second members, under conditions, and for a time sufficient to permit binding of a first member to a second member, wherein said tag is correlative with a particular first member and detectable by non-fluorescent spectrometry, or potentiometry, (b) separating bound first and second members from unbound members, (c) cleaving the tag from the tagged first member, and (d) detecting the tag by non-fluorescent spectrometry, or potentiometry, and therefrom detecting the binding of the first member to the second member .

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 3 OF 3 USPATFULL on STN
AN 2000:21384 USPATFULL
TI Methods and compositions for enhancing sensitivity in the analysis of biological-based assays
IN Ness, Jeffrey Van, Seattle, WA, United States
Tabone, John C., Bothell, WA, United States
Howbert, J. Jeffry, Bellevue, WA, United States
Mulligan, John T., Seattle, WA, United States
PA Rapigene, Inc., Bothell, WA, United States (U.S. corporation)
PI US 6027890 20000222
AI US 1997-898501 19970722 (8)
RLI Continuation-in-part of Ser. No. US 1997-787521, filed on 22 Jan 1997, now abandoned
PRAI US 1996-10436P 19960123 (60)
US 1996-15402P 19960321 (60)
DT Utility
FS Granted
EXNAM Primary Examiner: Houtteman, Scott W.
LREP Seed and Berry LLP
CLMN Number of Claims: 72
ECL Exemplary Claim: 1
DRWN 19 Drawing Figure(s); 19 Drawing Page(s)
LN.CNT 6333

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods are provided for detecting the binding of a first member to a second member of a ligand pair, comprising the steps of (a) combining a set of first tagged members with a biological sample which may contain one or more second members, under conditions, and for a time sufficient to permit binding of a first member to a second member, wherein said tag is correlative with a particular first member and detectable by non-fluorescent spectrometry, or potentiometry, (b) separating bound first and second members from unbound members, (c) cleaving the tag from the tagged first member, and (d) detecting the tag by non-fluorescent spectrometry, or potentiometry, and therefrom detecting the binding of the first member to the second member.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09567863

=> d his

(FILE 'HOME' ENTERED AT 15:14:33 ON 09 FEB 2004)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 15:14:58 ON
09 FEB 2004

L1 2822 S SOLID SUPPORT AND DIFFERENT (4A) REACTION?
L2 571 S L1 AND DIFFERENT (3A) LABEL?
L3 69 S L2 AND CHARG? (3A) SPECI?
L4 0 S L3 AND MASS SPECTROMETR
L5 44 S L3 AND MASS SPECTROMET?
L6 44 DUP REM L5 (0 DUPLICATES REMOVED)
L7 24 S L6 AND SET (4A) LABEL?
L8 10 S L7 AND LOT?
L9 23 S L7 AND LOCATION?
L10 7 S L7 AND DIFFERENT (4A) LOCATION?
L11 5 S L7 AND DIVID? (5A) SUPPORT?
L12 19 S L7 NOT L11
L13 3 S L12 AND DIFFERENT (5A) LOCATION?

=>

09567863

d his

(FILE 'HOME' ENTERED AT 15:14:33 ON 09 FEB 2004)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 15:14:58 ON
09 FEB 2004

L1 2822 S SOLID SUPPORT AND DIFFERENT (4A) REACTION?
L2 571 S L1 AND DIFFERENT (3A) LABEL?
L3 69 S L2 AND CHARG? (3A) SPECI?
L4 0 S L3 AND MASS SPECTROMETR
L5 44 S L3 AND MASS SPECTROMET?
L6 44 DUP REM L5 (0 DUPLICATES REMOVED)
L7 24 S L6 AND SET (4A) LABEL?
L8 10 S L7 AND LOT?
L9 23 S L7 AND LOCATION?
L10 7 S L7 AND DIFFERENT (4A) LOCATION?
L11 5 S L7 AND DIVID? (5A) SUPPORT?
L12 19 S L7 NOT L11
L13 3 S L12 AND DIFFERENT (5A) LOCATION?

=> s l10 not l13

L14 4 L10 NOT L13

=> d l14 bib abs 1-4

L14 ANSWER 1 OF 4 USPATFULL on STN

AN 2003:237907 USPATFULL

TI Compositions and methods for the therapy and diagnosis of colon cancer

IN King, Gordon E., Shoreline, WA, UNITED STATES

Meagher, Madeleine Joy, Seattle, WA, UNITED STATES

Xu, Jiangchun, Bellevue, WA, UNITED STATES

Secrist, Heather, Seattle, WA, UNITED STATES

Jiang, Yuqiu, Kent, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003166064 A1 20030904

AI US 2002-99926 A1 20020314 (10)

RLI Continuation-in-part of Ser. No. US 2001-33528, filed on 26 Dec 2001,
PENDING Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul
2001, PENDING

PRAI US 2001-302051P 20010629 (60)

US 2001-279763P 20010328 (60)

US 2000-223283P 20000803 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 8531

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer,
particularly colon cancer, are disclosed. Illustrative compositions
comprise one or more colon tumor polypeptides, immunogenic portions
thereof, polynucleotides that encode such polypeptides, antigen
presenting cell that expresses such polypeptides, and T cells that are
specific for cells expressing such polypeptides. The disclosed
compositions are useful, for example, in the diagnosis, prevention
and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09567863

L14 ANSWER 2 OF 4 USPATFULL on STN
AN 2003:106233 USPATFULL
TI Compositions and methods for the therapy and diagnosis of pancreatic cancer
IN Benson, Darin R., Seattle, WA, UNITED STATES
Kalos, Michael D., Seattle, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Persing, David H., Redmond, WA, UNITED STATES
Hepler, William T., Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2003073144 A1 20030417
AI US 2002-60036 A1 20020130 (10)
PRAI US 2001-333626P 20011127 (60)
US 2001-305484P 20010712 (60)
US 2001-265305P 20010130 (60)
US 2001-267568P 20010209 (60)
US 2001-313999P 20010820 (60)
US 2001-291631P 20010516 (60)
US 2001-287112P 20010428 (60)
US 2001-278651P 20010321 (60)
US 2001-265682P 20010131 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 14253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly pancreatic cancer, are disclosed. Illustrative compositions comprise one or more pancreatic tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 3 OF 4 USPATFULL on STN
AN 2002:272801 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN Stolk, John A., Bothell, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Chenault, Ruth A., Seattle, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002150922 A1 20021017
AI US 2001-998598 A1 20011116 (9)
PRAI US 2001-304037P 20010710 (60)
US 2001-279670P 20010328 (60)
US 2001-267011P 20010206 (60)
US 2000-252222P 20001120 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1

09567863

DRWN No Drawings

LN.CNT 9233

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 4 OF 4 USPATFULL on STN

AN 2002:243051 USPATFULL

TI Compositions and methods for the therapy and diagnosis of ovarian cancer

IN Algate, Paul A., Issaquah, WA, UNITED STATES

Jones, Robert, Seattle, WA, UNITED STATES

Harlocker, Susan L., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2002132237 A1 20020919

AI US 2001-867701 A1 20010529 (9)

PRAI US 2000-207484P 20000526 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092

CLMN Number of Claims: 11

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 25718

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

09567863

=> d his

(FILE 'HOME' ENTERED AT 15:14:33 ON 09 FEB 2004)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 15:14:58 ON 09 FEB 2004

L1 2822 S SOLID SUPPORT AND DIFFERENT (4A) REACTION?
L2 571 S L1 AND DIFFERENT (3A) LABEL?
L3 69 S L2 AND CHARG? (3A) SPECI?
L4 0 S L3 AND MASS SPECTROMETR
L5 44 S L3 AND MASS SPECTROMET?
L6 44 DUP REM L5 (0 DUPLICATES REMOVED)
L7 24 S L6 AND SET (4A) LABEL?
L8 10 S L7 AND LOT?
L9 23 S L7 AND LOCATION?
L10 7 S L7 AND DIFFERENT (4A) LOCATION?
L11 5 S L7 AND DIVID? (5A) SUPPORT?
L12 19 S L7 NOT L11
L13 3 S L12 AND DIFFERENT (5A) LOCATION?
L14 4 S L10 NOT L13

=> s l7 not l14

L15 20 L7 NOT L14

=> s l15 not l13

L16 17 L15 NOT L13

=> d l16 bib abs 1-17

L16 ANSWER 1 OF 17 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2000-062435 [05] WPIDS
DNC C2000-017321
TI Analysis of compounds using a **solid support**, labeled
compounds and **mass spectrometry**.
DC A96 B04 D16 J04
IN ELDER, J K; HAMILTON, A L; HOUSBY, J N; SHCHEPINOV, M S; SOUTHERN, E M
PA (ISIS-N) ISIS INNOVATION LTD
CYC 87
PI WO 9960007 A2 19991125 (200005)* EN 65p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
TT UA UG US UZ VN YU ZA ZW
AU 9939437 A 19991206 (200019)
EP 1068216 A2 20010117 (200105) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
JP 2002515588 W 20020528 (200238) 77p
EP 1068216 B1 20031210 (200405) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT WO 9960007 A2 WO 1999-GB1561 19990517; AU 9939437 A AU 1999-39437
19990517; EP 1068216 A2 EP 1999-922334 19990517, WO 1999-GB1561 19990517;
JP 2002515588 W WO 1999-GB1561 19990517, JP 2000-549625 19990517; EP
1068216 B1 EP 1999-922334 19990517, WO 1999-GB1561 19990517
FDT AU 9939437 A Based on WO 9960007; EP 1068216 A2 Based on WO 9960007; JP
2002515588 W Based on WO 9960007; EP 1068216 B1 Based on WO 9960007
PRAI EP 1998-303873 19980515
AN 2000-062435 [05] WPIDS
AB WO 9960007 A UPAB: 20000128
NOVELTY - New methods for the analysis of compounds, particularly nucleic

acids, use a **solid support**, labeled compounds and **mass spectrometry**.

DETAILED DESCRIPTION - A novel method of making a **set** of **labeled** compounds, using of a support and a **set** of **labels**, comprises:

(1) at least one first or intermediate step comprising dividing the support into lots, performing a **different** chemical **reaction** on each lot of the support so as either to modify that lot of the support or to couple a chemical moiety to that lot of the support, tagging a fraction of each lot of the support with a **different label**, and combining the lots of the support, and

(2) at least one intermediate or final step comprising dividing the support into lots, performing a **different** chemical **reaction** on each lot of the support, so as either to modify that lot of the support or to couple a chemical moiety to that lot of the support, tagging a fraction of each lot of the support with a **different label**, where each **different label** is linked to a chemical moiety a labeled compound which is separable from the support, and combining the lots of the support.

INDEPENDENT CLAIMS are also included for the following:

(1) a **set** of **labeled** compounds where a molecule of a compound of the set is tagged with a single label which identifies the nature and/or the position of a component of that molecule, and different molecules of the same compound are tagged with **different labels**;

(2) a reagent comprising a **solid support** which carries on its surface molecules of an oligomer, with different oligomer molecules having the same sequence where the oligomer molecules include some shorter oligomer molecules and a shorter oligomer molecule carries a label which identifies the nature and position of a monomer unit of the oligomer molecule;

(3) a method comprising providing a labeled oligonucleotide (ON) or nucleic acid, and removing the label by cleavage to give a **charged species** which is subjected to **mass spectrometry** (MS);

(4) an assay method in which a labeled probe is partitioned into 2 fractions one of which is determined, the probe comprising a ligand joined to a label by a link which is cleavable to give a **charged species** for MS;

(5) a library of probes each comprising a ligand joined to a label by a link which is cleavable to give a **charged species** for analysis by MS, where each different probe has a **different label**;

(6) a compound of formula (I);

(7) an insert for use as a target for laser desorption ionization MS, which insert has a target surface of glass or of an organic polymer carrying an immobilized compound for analysis;

(8) a kit comprising a MS and a supply of inserts, for use as targets for laser desorption MS, having target surfaces of glass or of an organic polymer;

(9) a system for analyzing nucleic acids comprising:

(a) a **solid support** carrying an array of nucleic acids to act as targets for analysis or as probes to capture a target;

(b) ON reagents tagged with moieties suitable for analysis by MS;

(c) reagents and apparatus for biochemical procedures to allow specific interaction between the tagged ONs and the target;

(d) a device to introduce the samples into a MS, and
(e) a MS;

(10) a system for analyzing nucleic acids on a **solid support** comprising:

(a) components (a)-(c) as in (9);

(b) a device to introduce the **solid support** into a MS, and
 (c) a MS;
 (11) an automated system for analyzing nucleic acids comprising:
 (a) ON reagents, tagged with moieties suitable for analysis by MS;
 (b) a MS;
 (c) a computer to carry out the analysis, and
 (d) software to interpret a mass spectrum;
 (12) a nucleotide or ON labeled with a tag suitable for analysis by MS, the labeled nucleotide or ON being suitable for enzymatic incorporation, where the tag is a compound of formula (I) without the proviso:
 R1R2R3CY (I)
 Y = a leaving group for reaction with a nucleophilic species, and
 R1, R2 and R3 = same or different and each is a monocyclic or fused ring aromatic group, at least one of which carries a substituent selected from 1-20C alkoxy or hydrocarbyl optionally substituted by carboxylic acid, sulfonic acid, nitro, cyano, hydroxyl, thiol, primary, secondary or tertiary amino, primary or secondary amido, anhydride, carbonyl halide, or active ester; provided that R1, R2 and R3 together carry at least 2 amide groups and/or at least 2 N-hydroxysuccinimide ester groups.
 USE - The methods and products are used for the analysis of chemical compounds, particularly nucleic acid molecules.
 ADVANTAGE - None given.
 Dwg. 0/8

L16 ANSWER 2 OF 17 USPATFULL on STN
 AN 2003:279097 USPATFULL
 TI Releasable nonvolatile mass label molecules
 IN Monforte, Joseph A., Berkeley, CA, United States
 Becker, Christopher H., Palo Alto, CA, United States
 Pollart, Daniel J., Menlo Park, CA, United States
 Shaler, Thomas A., Menlo Park, CA, United States
 PA Sequenom Inc., San Diego, CA, United States (U.S. corporation)
 PI US 6635452 B1 20031021
 AI US 1997-988024 19971210 (8)
 PRAI US 1996-33037P 19961210 (60)
 US 1997-46719P 19970516 (60)
 DT Utility
 FS GRANTED
 EXNAM Primary Examiner: Riley, Jezia
 LREP Heller Ehrman White & McAuliffe LLP, Seidman, Stephanie L.
 CLMN Number of Claims: 90
 ECL Exemplary Claim: 1
 DRWN 51 Drawing Figure(s); 35 Drawing Page(s)
 LN.CNT 4660
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Using nonvolatile, releasable, mass-labels, the present invention provides for the synthesis and use of mass-labeled compounds to specifically interact with biomolecular targets. Following binding of the mass-labeled compounds to the target molecule, the unique mass-label can be analyzed using **mass spectrometry** to identify and characterize the target molecule. In one embodiment of the invention, a mass-labeled oligonucleotide probe is used to identify a specific gene sequence. A myriad of mass-labeled compounds may be produced for use in a wide variety of interactions such as oligonucleotide-oligonucleotide hybridization, polynucleotide-polynucleotide interactions, enzyme-substrate or substrate analog/intermediate interactions, polypeptide-nucleic acid interactions, protein-ligand interactions, receptor-ligand interactions, polypeptide-metal interactions, nucleic acid-metal interactions or antigen-antibody interactions. Also contemplated are combinatorial

09567863

processes for creating large libraries of compounds permitting rapid screening for a wide variety of targets.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 3 OF 17 USPATFULL on STN
AN 2003:234664 USPATFULL
TI Methods and compositions for analyzing nucleic acid molecules utilizing sizing techniques
IN Ness, Jeffrey Van, Seattle, WA, United States
Tabone, John C., Bothell, WA, United States
Howbert, J. Jeffry, Bellevue, WA, United States
Mulligan, John T., Seattle, WA, United States
PA Qiagen Genomics, Inc., Bothell, WA, United States (U.S. corporation)
PI US 6613508 B1 20030902
AI US 1997-898564 19970722 (8)
RLI Continuation-in-part of Ser. No. US 1997-786834, filed on 22 Jan 1997, now abandoned
PRAI US 1996-14536P 19960123 (60)
US 1996-20487P 19960604 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Houtteman, Scott W.
LREP SEED Intellectual Property Law Group PLLC
CLMN Number of Claims: 40
ECL Exemplary Claim: 1
DRWN 48 Drawing Figure(s); 44 Drawing Page(s)
LN.CNT 6942

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Tags and linkers specifically designed for a wide variety of nucleic acid reactions are disclosed, which are suitable for a wide variety of nucleic acid reactions wherein separation of nucleic acid molecules based upon size is required.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 4 OF 17 USPATFULL on STN
AN 2003:219681 USPATFULL
TI Methods and compositions for detecting target sequences
IN Lyamichev, Victor, Madison, WI, UNITED STATES
Neri, Bruce P., Madison, WI, UNITED STATES
Hall, Jeff, Madison, WI, UNITED STATES
Lukowiak, Andrew A., Stoughton, WI, UNITED STATES
PI US 2003152971 A1 20030814
AI US 2002-290386 A1 20021107 (10)
RLI Continuation-in-part of Ser. No. US 2000-713601, filed on 15 Nov 2000, PENDING Continuation-in-part of Ser. No. US 1999-350309, filed on 9 Jul 1999, GRANTED, Pat. No. US 6348314 Division of Ser. No. US 1996-756386, filed on 26 Nov 1996, GRANTED, Pat. No. US 5985557
PRAI WO 1998-US5809 19980324
WO 1997-US1072 19970122
US 2001-344946P 20011107 (60)
US 2002-361060P 20020227 (60)
DT Utility
FS APPLICATION
LREP MEDLEN & CARROLL, LLP, Suite 350, 101 Howard Street, San Francisco, CA, 94105
CLMN Number of Claims: 53
ECL Exemplary Claim: 1
DRWN 170 Drawing Page(s)
LN.CNT 16700

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09567863

AB The present invention relates to compositions and methods for the detection and characterization of nucleic acid sequences and variations in nucleic acid sequences. The present invention relates to methods for forming a nucleic acid cleavage structure on a target sequence and cleaving the nucleic acid cleavage structure in a site-specific manner. For example, in some embodiments, a 5' nuclease activity from any of a variety of enzymes is used to cleave the target-dependent cleavage structure, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 5 OF 17 USPATFULL on STN

AN 2003:129820 USPATFULL

TI FEN-1 endonucleases, mixtures and cleavage methods

IN Kaiser, Michael W., Madison, WI, United States

Lyamichev, Victor I., Madison, WI, United States

Lyamicheva, Natasha, Madison, WI, United States

PA Third Wave Technologies, Ins., Madison, WI, United States (U.S. corporation)

PI US 6562611 B1 20030513

WO 9823774 19980604

AI US 1999-308825 19991008 (9)

WO 1997-US21783 19971126

19991008 PCT 371 date

RLI Continuation of Ser. No. US 1996-757653, filed on 29 Nov 1996, now patented, Pat. No. US 5843669 Continuation of Ser. No. US 1996-758314, filed on 2 Dec 1996, now patented, Pat. No. US 6090606

DT Utility

FS GRANTED

EXNAM Primary Examiner: Patterson, Jr., Charles L.

LREP Medlen & Carroll, LLP

CLMN Number of Claims: 47

ECL Exemplary Claim: 1

DRWN 198 Drawing Figure(s); 185 Drawing Page(s)

LN.CNT 13398

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to means for the detection and characterization of nucleic acid sequences, as well as variations in nucleic acid sequences. The present invention also relates to improved cleavage means for the detection and characterization of nucleic acid sequences. Structure-specific nucleases derived from a variety of thermostable organisms are provided. These structure-specific nucleases are used to cleave target-dependent cleavage structures, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 6 OF 17 USPATFULL on STN

AN 2003:123211 USPATFULL

TI Infrared matrix-assisted laser desorption/ionization mass spectrometric analysis of macromolecules

IN Hillenkamp, Franz, Munster, GERMANY, FEDERAL REPUBLIC OF

PA Sequenom, Inc., San Diego, CA, United States (U.S. corporation)

PI US 6558902 B1 20030506

AI US 1999-307006 19990507 (9)

RLI Continuation-in-part of Ser. No. US 1998-74936, filed on 7 May 1998

DT Utility

FS GRANTED

EXNAM Primary Examiner: Horlick, Kenneth R.

LREP Seidman, Stephanie L., Heller Ehrman White & McAuliffe, LLP

09567863

CLMN Number of Claims: 226
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 8275

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Mixtures containing a biological macromolecule, such as a nucleic acid molecule or a polypeptide, and a liquid matrix, which absorbs infrared (IR) radiation, are provided. These mixtures are useful for analysis of the biological macromolecule by IR matrix assisted laser desorption/ionization (IR-MALDI) **mass spectrometry**. Also provided are processes for analyzing a biological macromolecule using IR-MALDI **mass spectrometry**. For example, processes for detecting the presence or identity of a biological macromolecule in a sample, or for sequencing a biological macromolecule are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 7 OF 17 USPATFULL on STN

AN 2003:115740 USPATFULL
TI FEN-1 endonuclease, mixtures and cleavage methods
IN Kaiser, Michael W., Madison, WI, United States
Lyamichev, Victor I., Madison, WI, United States
Lyamicheva, Natasha, Madison, WI, United States
PA Third Wave Technologies, Inc., Madison, WI, United States (U.S. corporation)
PI US 6555357 B1 20030429
AI US 2000-684938 20001006 (9)
RLI Division of Ser. No. US 308825 Continuation of Ser. No. US 1996-757653, filed on 29 Nov 1996, now patented, Pat. No. US 5843669 Continuation of Ser. No. US 1996-758314, filed on 2 Dec 1996, now patented, Pat. No. US 6090606
DT Utility
FS GRANTED
EXNAM Primary Examiner: Patterson, Jr., Charles L.
LREP Medlen & Carroll, LLP
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 219 Drawing Figure(s); 185 Drawing Page(s)
LN.CNT 13235

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to means for the detection and characterization of nucleic acid sequences, as well as variations in nucleic acid sequences. The present invention also relates to improved cleavage means for the detection and characterization of nucleic acid sequences. Structure-specific nucleases derived from a variety of thermostable organisms are provided. These structure-specific nucleases are used to cleave target-dependent cleavage structures, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 8 OF 17 USPATFULL on STN

AN 2003:64675 USPATFULL
TI Reactions on dendrimers
IN Neri, Bruce P., Madison, WI, UNITED STATES
Hall, Jeff G., Madison, WI, UNITED STATES
Lyamichev, Victor, Madison, WI, UNITED STATES
Smith, Lloyd M., Madison, WI, UNITED STATES
PI US 2003044796 A1 20030306
AI US 2001-940244 A1 20010827 (9)

09567863

RLI Continuation-in-part of Ser. No. US 2000-732622, filed on 8 Dec 2000,
PENDING Continuation-in-part of Ser. No. US 1999-350309, filed on 9 Jul
1999, GRANTED, Pat. No. US 6348314 Division of Ser. No. US 1996-756386,
filed on 26 Nov 1996, GRANTED, Pat. No. US 5985557 Division of Ser. No.
US 2000-381212, filed on 8 Feb 2000, PENDING A 371 of International Ser.
No. WO 1998-US5809, filed on 24 Mar 1998, UNKNOWN

DT Utility

FS APPLICATION

LREP David A. Casimir, MEDLEN & CARROLL, LLP, Suite 350, 101 Howard Street,
San Francisco, CA, 94104

CLMN Number of Claims: 38

ECL Exemplary Claim: 1

DRWN 210 Drawing Page(s)

LN.CNT 15736

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions and methods for the
detection and characterization of nucleic acid sequences and variations
in nucleic acid sequences. The present invention relates to methods for
forming a nucleic acid cleavage structure on dendrimers and cleaving the
nucleic acid cleavage structure in a site-specific manner. For example,
in some embodiments, a 5' nuclease activity from any of a variety of
enzymes is used to cleave the target-dependent cleavage structure,
thereby indicating the presence of specific nucleic acid sequences or
specific variations thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 9 OF 17 USPATFULL on STN

AN 2003:30278 USPATFULL

TI Releasable nonvolatile mass-label molecules

IN Monforte, Joseph A., Berkeley, CA, UNITED STATES
Becker, Christopher H., Palo Alto, CA, UNITED STATES
Pollart, Daniel J., Menlo Park, CA, UNITED STATES
Shaler, Thomas A., Menlo Park, CA, UNITED STATES

PI US 2003022225 A1 20030130

AI US 2002-202189 A1 20020722 (10)

RLI Continuation of Ser. No. US 1997-988024, filed on 10 Dec 1997, PENDING

PRAI US 1996-33037P 19961210 (60)

US 1997-46719P 19970516 (60)

DT Utility

FS APPLICATION

LREP Stephanie Seidman, Heller Ehrman White & McAuliffe LLP, 7th Floor, 4350
La Jolla Village Drive, San Diego, CA, 92122

CLMN Number of Claims: 122

ECL Exemplary Claim: 1

DRWN 35 Drawing Page(s)

LN.CNT 4085

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Releasable tag reagents for use in the detection and analysis of target
molecules, particular in **mass spectrometric** analyses
are provided. Also provided are methods of detection that employ
releasable tag reagents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 10 OF 17 USPATFULL on STN

AN 2002:329806 USPATFULL

TI Invasion assays

IN Hall, Jeff G., Madison, WI, UNITED STATES
Lyamichev, Victor I., Madison, WI, UNITED STATES
Mast, Andrea L., Madison, WI, UNITED STATES
Brow, Mary Ann D., Madison, WI, UNITED STATES

09567863

PI US 2002187486 A1 20021212
AI US 2001-33297 A1 20011102 (10)
RLI Continuation of Ser. No. US 1999-350597, filed on 9 Jul 1999, PENDING
Continuation of Ser. No. US 1997-823516, filed on 24 Mar 1997, GRANTED,
Pat. No. US 5994069 Continuation-in-part of Ser. No. US 1996-756038,
filed on 26 Nov 1996, ABANDONED Continuation-in-part of Ser. No. US
1996-756386, filed on 26 Nov 1996, GRANTED, Pat. No. US 5985557
Continuation-in-part of Ser. No. US 1996-682853, filed on 12 Jul 1996,
GRANTED, Pat. No. US 6001567 Continuation-in-part of Ser. No. US
1996-599491, filed on 24 Jan 1996, GRANTED, Pat. No. US 5846717
DT Utility
FS APPLICATION
LREP MEDLEN & CARROLL, LLP, Suite 350, 101 Howard Street, San Francisco, CA,
94105
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN 121 Drawing Page(s)
LN.CNT 10560

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to means for the detection and
characterization of nucleic acid sequences, as well as variations in
nucleic acid sequences. The present invention also relates to methods
for forming a nucleic acid cleavage structure on a target sequence and
cleaving the nucleic acid cleavage structure in a site-specific manner.
The structure-specific nuclease activity of a variety of enzymes is used
to cleave the target-dependent cleavage structure, thereby indicating
the presence of specific nucleic acid sequences or specific variations
thereof. The present invention further relates to methods and devices
for the separation of nucleic acid molecules based on charge. The
present invention also provides methods for the detection of non-target
cleavage products via the formation of a complete and activated protein
binding region. The invention further provides sensitive and specific
methods for the detection of human cytomegalovirus nucleic acid in a
sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 11 OF 17 USPATFULL on STN
AN 2002:307838 USPATFULL
TI Mass defect labeling for the determination of oligomer sequences
IN Schneider, Luke V., Half Moon Bay, CA, UNITED STATES
Hall, Michael P., San Carlos, CA, UNITED STATES
Petesch, Robert, Newark, CA, UNITED STATES
PA Target Discovery, San Carlos, CA, UNITED STATES, 94070 (U.S.
corporation)
PI US 2002172961 A1 20021121
AI US 2001-35349 A1 20011019 (10)
PRAI US 2000-242165P 20001019 (60)
US 2000-242398P 20001019 (60)
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH
FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 50
ECL Exemplary Claim: 1
DRWN 32 Drawing Page(s)
LN.CNT 3568

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Mass tagging methods are provided that lead to **mass**
spectrometer detection sensitivities and molecular
discriminations that are improved over other methods. In particular the
methods are useful for discriminating tagged molecules and fragments of

molecules from chemical noise in the mass spectrum. These mass tagging methods are useful for oligomer sequencing, determining the relative abundances of molecules from different samples, and identifying individual molecules or chemical processing steps in combinatorial chemical libraries. The methods provided are useful for the simultaneous analysis of multiple molecules and reaction mixtures by **mass spectrometric** methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 12 OF 17 USPATFULL on STN
 AN 2002:254176 USPATFULL
 TI Detection of nucleic acids by multiple sequential invasive cleavages 02
 IN Hall, Jeff G., Madison, WI, United States
 Lyamichev, Victor I., Madison, WI, United States
 Mast, Andrea L., Madison, WI, United States
 Brow, Mary Ann D., Madison, WI, United States
 PA Third Wave Technologies, Inc, Madison, WI, United States (U.S. corporation)
 PI US 6458535 B1 20021001
 AI US 1999-350597 19990709 (9)
 RLI Continuation of Ser. No. US 1997-823516, filed on 24 Mar 1997, now patented, Pat. No. US 5994069 Continuation-in-part of Ser. No. US 1996-759038, filed on 2 Dec 1996, now patented, Pat. No. US 6090543 Continuation-in-part of Ser. No. US 1996-756386, filed on 26 Nov 1996, now patented, Pat. No. US 5085557 Continuation-in-part of Ser. No. US 1996-682853, filed on 12 Jul 1996, now patented, Pat. No. US 6001567 Continuation-in-part of Ser. No. US 1996-599491, filed on 24 Jan 1996, now patented, Pat. No. US 5846717, issued on 8 Dec 1998
 DT Utility
 FS GRANTED
 EXNAM Primary Examiner: Jones, W. Gary; Assistant Examiner: Souaya, Jehanne
 LREP Medlen & Carroll, LLP
 CLMN Number of Claims: 27
 ECL Exemplary Claim: 1
 DRWN 170 Drawing Figure(s); 128 Drawing Page(s)
 LN.CNT 13831

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to means for the detection and characterization of nucleic acid sequences, as well as variations in nucleic acid sequences. The present invention also relates to methods for forming a nucleic acid cleavage structure on a target sequence and cleaving the nucleic acid cleavage structure in a site-specific manner. The structure-specific nuclease activity of a variety of enzymes is used to cleave the target-dependent cleavage structure, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof. The present invention further relates to methods and devices for the separation of nucleic acid molecules based on charge. The present invention also provides methods for the detection of non-target cleavage products via the formation of a complete and activated protein binding region. The invention further provides sensitive and specific methods for the detection of human cytomegalovirus nucleic acid in a sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 13 OF 17 USPATFULL on STN
 AN 2002:221317 USPATFULL
 TI Methods and compositions for determining the sequence of nucleic acid molecules
 IN Ness, Jeffrey Van, Seattle, WA, UNITED STATES
 Tabone, John C., Bothell, WA, UNITED STATES

09567863

Howbert, J. Jeffry, Bellevue, WA, UNITED STATES

Mulligan, John T., Seattle, WA, UNITED STATES

PI US 2002119456 A1 20020829

US 6623928 B2 20030923

AI US 2001-855999 A1 20010514 (9)

RLI Continuation of Ser. No. US 1997-898180, filed on 22 Jul 1997, PATENTED
Continuation-in-part of Ser. No. US 1997-786835, filed on 22 Jan 1997,
ABANDONED

PRAI US 1996-10462P 19960123 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092

CLMN Number of Claims: 58

ECL Exemplary Claim: 1

DRWN 25 Drawing Page(s)

LN.CNT 6401

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compounds, including compositions therefrom, are provided for determining the sequence of nucleic acid molecules. The methods permit the determination of multiple nucleic acid sequences simultaneously. The compounds are used as tags to generate tagged nucleic acid fragments which are complementary to a selected target nucleic acid molecule. Each tag is correlative with a particular nucleotide and, in a preferred embodiment, is detectable by **mass spectrometry**. Following separation of the tagged fragments by sequential length, the tags are cleaved from the tagged fragments. In a preferred embodiment, the tags are detected by **mass spectrometry** and the sequence of the nucleic acid molecule is determined therefrom. The individual steps of the methods can be used in automated format, e.g., by the incorporation into systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 14 OF 17 USPATFULL on STN

AN 2001:196797 USPATFULL

TI Methods and compositions for determining the sequence of nucleic acid molecules

IN Van Ness, Jeffrey, Seattle, WA, United States

Tabone, John C., Bothell, WA, United States

Howbert, J. Jeffry, Bellevue, WA, United States

Mulligan, John T., Seattle, WA, United States

PA Qiagen Genomics, Inc., Bothell, WA, United States (U.S. corporation)

PI US 6312893 B1 20011106

AI US 1997-898180 19970722 (8)

RLI Continuation-in-part of Ser. No. US 1997-786835, filed on 22 Jan 1997,
now abandoned

PRAI US 1996-10462P 19960123 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Houtteman, Scott W.

LREP Seed Intellectual Property Law Group PLLC

CLMN Number of Claims: 58

ECL Exemplary Claim: 1

DRWN 46 Drawing Figure(s); 42 Drawing Page(s)

LN.CNT 6431

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and compounds, including compositions therefrom, are provided for determining the sequence of nucleic acid molecules. The methods permit the determination of multiple nucleic acid sequences simultaneously. The compounds are used as tags to generate tagged nucleic acid fragments which are complementary to a selected target

nucleic acid molecule. Each tag is correlative with a particular nucleotide and, in a preferred embodiment, is detectable by **mass spectrometry**. Following separation of the tagged fragments by sequential length, the tags are cleaved from the tagged fragments. In a preferred embodiment, the tags are detected by **mass spectrometry** and the sequence of the nucleic acid molecule is determined therefrom. The individual steps of the methods can be used in automated format, e.g., by the incorporation into systems.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 15 OF 17 USPATFULL on STN
 AN 2000:91761 USPATFULL
 TI Cleavage agents
 IN Kaiser, Michael W., Madison, WI, United States
 Lyamichev, Victor I., Madison, WI, United States
 Lyamicheva, Natasha, Madison, WI, United States
 PA Third Wave Technologies, Inc., Madison, WI, United States (U.S. corporation)
 PI US 6090606 20000718
 AI US 1996-758314 19961202 (8)
 RLI Continuation-in-part of Ser. No. US 1996-756386, filed on 26 Nov 1996 which is a continuation-in-part of Ser. No. US 1996-682853, filed on 12 Jul 1996 which is a continuation-in-part of Ser. No. US 1996-599491, filed on 24 Jan 1996, now patented, Pat. No. US 5846717 which is a continuation-in-part of Ser. No. US 1996-756376, filed on 2 Dec 1996
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Jones, W. Gary; Assistant Examiner: Shoemaker, Debra
 LREP Medlen & Carroll, LLP
 CLMN Number of Claims: 24
 ECL Exemplary Claim: 6
 DRWN 144 Drawing Figure(s); 117 Drawing Page(s)
 LN.CNT 11295

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to means for the detection and characterization of nucleic acid sequences, as well as variations in nucleic acid sequences. The present invention also relates to improved cleavage means for the detection and characterization of nucleic acid sequences. Structure-specific nucleases derived from a variety of thermostable organisms are provided. These structure-specific nucleases are used to cleave target-dependent cleavage structures, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 16 OF 17 USPATFULL on STN
 AN 2000:91698 USPATFULL
 TI Cleavage of nucleic acids
 IN Prudent, James R., Madison, WI, United States
 Hall, Jeff G., Madison, WI, United States
 Lyamichev, Victor I., Madison, WI, United States
 Brow, Mary Ann D., Madison, WI, United States
 Dahlberg, James E., Madison, WI, United States
 PA Third Wave Technologies, Inc., Madison, WI, United States (U.S. corporation)
 PI US 6090543 20000718
 AI US 1996-759038 19961202 (8)
 RLI Continuation-in-part of Ser. No. US 1996-756386, filed on 26 Nov 1996 which is a continuation-in-part of Ser. No. US 1996-682853, filed on 12 Jul 1996 which is a continuation-in-part of Ser. No. US 1996-599491,

09567863

filed on 24 Jan 1996 76 Ser. No. US 1996-758314, filed on 2 Dec 1996
DT Utility
FS Granted
EXNAM Primary Examiner: Jones, W. Gary; Assistant Examiner: Shoemaker, Debra
LREP Medlen & Carroll, LLP
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 102 Drawing Figure(s); 117 Drawing Page(s)
LN.CNT 11426

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to means for the detection and characterization of nucleic acid sequences, as well as variations in nucleic acid sequences. The present invention also relates to methods for forming a nucleic acid cleavage structure on a target sequence and cleaving the nucleic acid cleavage structure in a site-specific manner. The structure-specific nuclease activity of a variety of enzymes is used to cleave the target-dependent cleavage structure, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 17 OF 17 USPATFULL on STN
AN 1999:155453 USPATFULL
TI Detection of nucleic acids by multiple sequential invasive cleavages
IN Hall, Jeff G., Madison, WI, United States
Lyamichev, Victor I., Madison, WI, United States
Mast, Andrea L., Madison, WI, United States
Brow, Mary Ann D., Madison, WI, United States
PA Third Wave Technologies, Inc., Madison, WI, United States (U.S. corporation)
PI US 5994069 19991130
AI US 1997-823516 19970324 (8)
RLI Continuation-in-part of Ser. No. WO 1997-US1072, filed on 21 Jan 1997 which is a continuation-in-part of Ser. No. US 1996-759038, filed on 2 Dec 1996 And a continuation-in-part of Ser. No. US 1996-758314, filed on 2 Dec 1996 which is a continuation-in-part of Ser. No. US 1996-756386, filed on 26 Nov 1996 which is a continuation-in-part of Ser. No. US 1996-682853, filed on 12 Jul 1996 which is a continuation-in-part of Ser. No. US 1996-599491, filed on 24 Jan 1996, said Ser. No. US 759038 which is a continuation-in-part of Ser. No. US 1996-756386, filed on 26 Nov 1996
DT Utility
FS Granted
EXNAM Primary Examiner: Jones, W. Gary; Assistant Examiner: Shoemaker, Debra
LREP Medlen & Carroll, LLP
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN 169 Drawing Figure(s); 128 Drawing Page(s)
LN.CNT 14892

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to means for the detection and characterization of nucleic acid sequences, as well as variations in nucleic acid sequences. The present invention also relates to methods for forming a nucleic acid cleavage structure on a target sequence and cleaving the nucleic acid cleavage structure in a site-specific manner. The structure-specific nuclease activity of a variety of enzymes is used to cleave the target-dependent cleavage structure, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof. The present invention further relates to methods and devices for the separation of nucleic acid molecules based on charge. The present invention also provides methods for the detection of non-target

09567863

cleavage products via the formation of a complete and activated protein binding region. The invention further provides sensitive and specific methods for the detection of human cytomegalovirus nucleic acid in a sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

09567863

FILE 'HOME' ENTERED AT 16:29:12 ON 09 FEB 2004

=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'BIOSIS' ENTERED AT 16:29:31 ON 09 FEB 2004
COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'MEDLINE' ENTERED AT 16:29:31 ON 09 FEB 2004

FILE 'CAPLUS' ENTERED AT 16:29:31 ON 09 FEB 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 16:29:31 ON 09 FEB 2004
COPYRIGHT (C) 2004 THOMSON DERWENT

FILE 'USPATFULL' ENTERED AT 16:29:31 ON 09 FEB 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s librari? (5a) label?
L1 1025 LIBRARI? (5A) LABEL?

=> s l1 and set
L2 765 L1 AND SET

=> s l2 and charg?
L3 602 L2 AND CHARG?

=> s l3 and mass spectro?
L4 178 L3 AND MASS SPECTRO?

=> s l4 and solid support
L5 135 L4 AND SOLID SUPPORT

=> s l5 and different (3a) label?
L6 25 L5 AND DIFFERENT (3A) LABEL?

=> s l6 and divid? (4a) support
L7 5 L6 AND DIVID? (4A) SUPPORT

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 5 DUP REM L7 (0 DUPLICATES REMOVED)

=> d l8 bib abs 1-5

L8 ANSWER 1 OF 5 USPATFULL on STN
AN 2003:237907 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Secrist, Heather, Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

09567863

PI US 2003166064 A1 20030904
AI US 2002-99926 A1 20020314 (10)
RLI Continuation-in-part of Ser. No. US 2001-33528, filed on 26 Dec 2001,
PENDING Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul
2001, PENDING
PRAI US 2001-302051P 20010629 (60)
US 2001-279763P 20010328 (60)
US 2000-223283P 20000803 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 8531

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer,
particularly colon cancer, are disclosed. Illustrative compositions
comprise one or more colon tumor polypeptides, immunogenic portions
thereof, polynucleotides that encode such polypeptides, antigen
presenting cell that expresses such polypeptides, and T cells that are
specific for cells expressing such polypeptides. The disclosed
compositions are useful, for example, in the diagnosis, prevention
and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 5 USPATFULL on STN
AN 2003:106233 USPATFULL
TI Compositions and methods for the therapy and diagnosis of pancreatic
cancer
IN Benson, Darin R., Seattle, WA, UNITED STATES
Kalos, Michael D., Seattle, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Persing, David H., Redmond, WA, UNITED STATES
Hepler, William T., Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2003073144 A1 20030417
AI US 2002-60036 A1 20020130 (10)
PRAI US 2001-333626P 20011127 (60)
US 2001-305484P 20010712 (60)
US 2001-265305P 20010130 (60)
US 2001-267568P 20010209 (60)
US 2001-313999P 20010820 (60)
US 2001-291631P 20010516 (60)
US 2001-287112P 20010428 (60)
US 2001-278651P 20010321 (60)
US 2001-265682P 20010131 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 14253

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer,
particularly pancreatic cancer, are disclosed. Illustrative compositions
comprise one or more pancreatic tumor polypeptides, immunogenic portions

09567863

thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 5 USPATFULL on STN
AN 2002:272801 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN Stolk, John A., Bothell, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Chenault, Ruth A., Seattle, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002150922 A1 20021017
AI US 2001-998598 A1 20011116 (9)
PRAI US 2001-304037P 20010710 (60)
US 2001-279670P 20010328 (60)
US 2001-267011P 20010206 (60)
US 2000-252222P 20001120 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 9233

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 5 USPATFULL on STN
AN 2002:243051 USPATFULL
TI Compositions and methods for the therapy and diagnosis of ovarian cancer
IN Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002132237 A1 20020919
AI US 2001-867701 A1 20010529 (9)
PRAI US 2000-207484P 20000526 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 25718

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer,

09567863

particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 5 USPATFULL on STN
AN 2002:242791 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Secrist, Heather, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES (U.S. corporation)
PI US 2002131971 A1 20020919
AI US 2001-33528 A1 20011226 (10)
RLI Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001,
PENDING
PRAI US 2001-302051P 20010629 (60)
US 2001-279763P 20010328 (60)
US 2000-223283P 20000803 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 8083

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 16:29:12 ON 09 FEB 2004)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 16:29:31 ON 09 FEB 2004

L1 1025 S LIBRARI? (5A) LABEL?
L2 765 S L1 AND SET
L3 602 S L2 AND CHARG?
L4 178 S L3 AND MASS SPECTRO?
L5 135 S L4 AND SOLID SUPPORT
L6 25 S L5 AND DIFFERENT (3A) LABEL?
L7 5 S L6 AND DIVID? (4A) SUPPORT
L8 5 DUP REM L7 (0 DUPLICATES REMOVED)

=> s 16 not 18

09567863

L9 20 L6 NOT L8

=> dup rem l9

PROCESSING COMPLETED FOR L9

L10 20 DUP REM L9 (0 DUPLICATES REMOVED)

=> s l10 and fraction?

L11 18 L10 AND FRACTION?

=> s l11 and locatiion

L12 0 L11 AND LOCATIION

=> s l11 and location

L13 13 L11 AND LOCATION

=> d l13 bib abs 1-13

L13 ANSWER 1 OF 13 USPATFULL on STN

AN 2004:19649 USPATFULL

TI Identification of essential genes of cryptococcus neoformans and methods of use

IN Zamudio, Carlos, La Jolla, CA, UNITED STATES

Eroshkin, Alexey M., San Diego, CA, UNITED STATES

PI US 2004014955 A1 20040122

AI US 2002-320797 A1 20021216 (10)

PRAI US 2001-341261P 20011217 (60)

DT Utility

FS APPLICATION

LREP PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711

CLMN Number of Claims: 43

ECL Exemplary Claim: 1

DRWN 8 Drawing Page(s)

LN.CNT 6141

AB The present invention provides C. neoformans genes that are essential and are potential targets for drug screening. The nucleotide sequence of the target genes can be used for various drug discovery purposes, such as expression of the recombinant protein, hybridization assay and construction of nucleic acid arrays. The uses of proteins encoded by the essential genes, and genetically engineered cells comprising modified alleles of essential genes in various screening methods are also encompassed by the invention. The present invention also provides methods and compositions that enable the experimental determination as to whether any gene in the genome of Cryptococcus neoformans is essential, and whether that gene is required for virulence or pathogenicity. The identification of essential genes and those genes critical to the development of virulent infections, provides a basis for the development of screens for new drugs against C. neoformans.

L13 ANSWER 2 OF 13 USPATFULL on STN

AN 2003:306425 USPATFULL

TI DNA shuffling of monooxygenase genes for production of industrial chemicals

IN Affholter, Joseph A., Zephyr Cove, NV, UNITED STATES

Davis, S. Christopher, San Francisco, CA, UNITED STATES

Selifonov, Sergey A., Plymouth, MN, UNITED STATES

PA MAXYGEN, INC., Redwood City, CA (U.S. corporation)

PI US 2003215859 A1 20031120

AI US 2003-406892 A1 20030404 (10)

RLI Continuation of Ser. No. US 1999-373928, filed on 12 Aug 1999, GRANTED, Pat. No. US 6605430

PRAI US 1998-96271P 19980812 (60)

09567863

US 1999-130810P 19990423 (60)
DT Utility
FS APPLICATION
LREP MAXYGEN, INC., INTELLECTUAL PROPERTY DEPARTMENT, 515 GALVESTON DRIVE,
RED WOOD CITY, CA, 94063
CLMN Number of Claims: 141
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 5148

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides improved monooxygenases, dehydrogenases, and transferases that are useful for the biocatalytic synthesis of compounds such as α -hydroxycarboxylic acids, and aryl- and alkyl-hydroxy compounds. The polypeptides provided herein are improved in properties such as regioselectivity, enzymatic activity, stereospecificity, and the like. Methods for obtaining recombinant polynucleotides that encode these improved polypeptides are also provided, as are organisms that express the polypeptides and are thus useful for carrying out said biocatalytic syntheses. Also provided by the invention are methods for increasing said solvent resistance of organisms that are used in the synthetic methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 3 OF 13 USPATFULL on STN
AN 2003:279097 USPATFULL
TI Releasable nonvolatile mass label molecules
IN Monforte, Joseph A., Berkeley, CA, United States
Becker, Christopher H., Palo Alto, CA, United States
Pollart, Daniel J., Menlo Park, CA, United States
Shaler, Thomas A., Menlo Park, CA, United States
PA Sequenom Inc., San Diego, CA, United States (U.S. corporation)
PI US 6635452 B1 20031021
AI US 1997-988024 19971210 (8)
PRAI US 1996-33037P 19961210 (60)
US 1997-46719P 19970516 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Riley, Jezia
LREP Heller Ehrman White & McAuliffe LLP, Seidman, Stephanie L.
CLMN Number of Claims: 90
ECL Exemplary Claim: 1
DRWN 51 Drawing Figure(s); 35 Drawing Page(s)
LN.CNT 4660

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Using nonvolatile, releasable, mass-labels, the present invention provides for the synthesis and use of mass-labeled compounds to specifically interact with biomolecular targets. Following binding of the mass-labeled compounds to the target molecule, the unique mass-label can be analyzed using **mass spectrometry** to identify and characterize the target molecule. In one embodiment of the invention, a mass-labeled oligonucleotide probe is used to identify a specific gene sequence. A myriad of mass-labeled compounds may be produced for use in a wide variety of interactions such as oligonucleotide-oligonucleotide hybridization, polynucleotide-polynucleotide interactions, enzyme-substrate or substrate analog/intermediate interactions, polypeptide-nucleic acid interactions, protein-ligand interactions, receptor-ligand interactions, polypeptide-metal interactions, nucleic acid-metal interactions or antigen-antibody interactions. Also contemplated are combinatorial processes for creating large libraries of compounds permitting rapid screening for a wide variety of targets.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 4 OF 13 USPATFULL on STN
 AN 2003:258639 USPATFULL
 TI 207 human secreted proteins
 IN Ni, Jian, Germantown, MD, UNITED STATES
 Ebner, Reinhard, Gaithersburg, MD, UNITED STATES
 LaFleur, David W., Washington, DC, UNITED STATES
 Moore, Paul A., Germantown, MD, UNITED STATES
 Olsen, Henrik S., Gaithersburg, MD, UNITED STATES
 Rosen, Craig A., Laytonsville, MD, UNITED STATES
 Ruben, Steven M., Olney, MD, UNITED STATES
 Soppet, Daniel R., Centreville, VA, UNITED STATES
 Young, Paul E., Gaithersburg, MD, UNITED STATES
 Shi, Yanggu, Gaithersburg, MD, UNITED STATES
 Florence, Kimberly A., Rockville, MD, UNITED STATES
 Wei, Ying-Fei, Berkeley, CA, UNITED STATES
 Florence, Charles, Rockville, MD, UNITED STATES
 Hu, Jing-Shan, Mountain View, CA, UNITED STATES
 Li, Yi, Sunnyvale, CA, UNITED STATES
 Kyaw, Hla, Frederick, MD, UNITED STATES
 Fischer, Carrie L., Burke, VA, UNITED STATES
 Ferrie, Ann M., Painted Post, NY, UNITED STATES
 Fan, Ping, Potomac, MD, UNITED STATES
 Feng, Ping, Gaithersburg, MD, UNITED STATES
 Endress, Gregory A., Florence, MA, UNITED STATES
 Dillon, Patrick J., Carlsbad, CA, UNITED STATES
 Carter, Kenneth C., North Potomac, MD, UNITED STATES
 Brewer, Laurie A., St. Paul, MN, UNITED STATES
 Yu, Guo-Liang, Berkeley, CA, UNITED STATES
 Zeng, Zhizhen, Lansdale, PA, UNITED STATES
 Greene, John M., Gaithersburg, MD, UNITED STATES
 PI US 2003181692 A1 20030925
 AI US 2001-933767 A1 20010822 (9)
 RLI Continuation-in-part of Ser. No. WO 2001-US5614, filed on 21 Feb 2001,
 PENDING Continuation-in-part of Ser. No. US 1998-205258, filed on 4 Dec
 1998, PENDING
 PRAI US 2000-184836P 20000224 (60)
 US 2000-193170P 20000329 (60)
 US 1997-48885P 19970606 (60)
 US 1997-49375P 19970606 (60)
 US 1997-48881P 19970606 (60)
 US 1997-48880P 19970606 (60)
 US 1997-48896P 19970606 (60)
 US 1997-49020P 19970606 (60)
 US 1997-48876P 19970606 (60)
 US 1997-48895P 19970606 (60)
 US 1997-48884P 19970606 (60)
 US 1997-48894P 19970606 (60)
 US 1997-48971P 19970606 (60)
 US 1997-48964P 19970606 (60)
 US 1997-48882P 19970606 (60)
 US 1997-48899P 19970606 (60)
 US 1997-48893P 19970606 (60)
 US 1997-48900P 19970606 (60)
 US 1997-48901P 19970606 (60)
 US 1997-48892P 19970606 (60)
 US 1997-48915P 19970606 (60)
 US 1997-49019P 19970606 (60)
 US 1997-48970P 19970606 (60)
 US 1997-48972P 19970606 (60)

09567863

US 1997-48916P	19970606 (60)
US 1997-49373P	19970606 (60)
US 1997-48875P	19970606 (60)
US 1997-49374P	19970606 (60)
US 1997-48917P	19970606 (60)
US 1997-48949P	19970606 (60)
US 1997-48974P	19970606 (60)
US 1997-48883P	19970606 (60)
US 1997-48897P	19970606 (60)
US 1997-48898P	19970606 (60)
US 1997-48962P	19970606 (60)
US 1997-48963P	19970606 (60)
US 1997-48877P	19970606 (60)
US 1997-48878P	19970606 (60)
US 1997-57645P	19970905 (60)
US 1997-57642P	19970905 (60)
US 1997-57668P	19970905 (60)
US 1997-57635P	19970905 (60)
US 1997-57627P	19970905 (60)
US 1997-57667P	19970905 (60)
US 1997-57666P	19970905 (60)
US 1997-57764P	19970905 (60)
US 1997-57643P	19970905 (60)
US 1997-57769P	19970905 (60)
US 1997-57763P	19970905 (60)
US 1997-57650P	19970905 (60)
US 1997-57584P	19970905 (60)
US 1997-57647P	19970905 (60)
US 1997-57661P	19970905 (60)
US 1997-57662P	19970905 (60)
US 1997-57646P	19970905 (60)
US 1997-57654P	19970905 (60)
US 1997-57651P	19970905 (60)
US 1997-57644P	19970905 (60)
US 1997-57765P	19970905 (60)
US 1997-57762P	19970905 (60)
US 1997-57775P	19970905 (60)
US 1997-57648P	19970905 (60)
US 1997-57774P	19970905 (60)
US 1997-57649P	19970905 (60)
US 1997-57770P	19970905 (60)
US 1997-57771P	19970905 (60)
US 1997-57761P	19970905 (60)
US 1997-57760P	19970905 (60)
US 1997-57776P	19970905 (60)
US 1997-57778P	19970905 (60)
US 1997-57629P	19970905 (60)
US 1997-57628P	19970905 (60)
US 1997-57777P	19970905 (60)
US 1997-57634P	19970905 (60)
US 1997-70923P	19971218 (60)
US 1998-92921P	19980715 (60)
US 1998-94657P	19980730 (60)
US 1997-70923P	19971218 (60)
US 1998-92921P	19980715 (60)
US 1998-94657P	19980730 (60)

DT Utility

FS APPLICATION

LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850

CLMN Number of Claims: 23

ECL Exemplary Claim: 1

DRWN 10 Drawing Page(s)

09567863

LN.CNT 32746

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating diseases, disorders, and/or conditions related to these novel human secreted proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 5 OF 13 USPATFULL on STN

AN 2003:257902 USPATFULL

TI Gene disruption methodologies for drug target discovery

IN Roemer, Terry, Montreal, CANADA

Jiang, Bo, Montreal, CANADA

Boone, Charles, Toronto, CANADA

Bussey, Howard, Westmount, CANADA

Ohlsen, Kari L., San Diego, CA, UNITED STATES

PA Elitra Pharmaceuticals, Inc. (non-U.S. corporation)

PI US 2003180953 A1 20030925

AI US 2001-32585 A1 20011220 (10)

RLI Continuation-in-part of Ser. No. US 2001-792024, filed on 20 Feb 2001, PENDING

PRAI US 2000-259128P 20001229 (60)

US 2001-314050P 20010822 (60)

DT Utility

FS APPLICATION

LREP PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711

CLMN Number of Claims: 77

ECL Exemplary Claim: 1

DRWN 7 Drawing Page(s)

LN.CNT 7831

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods and compositions that enable the experimental determination as to whether any gene in the genome of a diploid pathogenic organism is essential, and whether it is required for virulence or pathogenicity. The methods involve the construction of genetic mutants in which one allele of a specific gene is inactivated while the other allele of the gene is placed under conditional expression. The identification of essential genes and those genes critical to the development of virulent infections, provides a basis for the development of screens for new drugs against such pathogenic organisms.

The present invention further provides Candida albicans genes that are demonstrated to be essential and are potential targets for drug screening. The nucleotide sequence of the target genes can be used for various drug discovery purposes, such as expression of the recombinant protein, hybridization assay and construction of nucleic acid arrays. The uses of proteins encoded by the essential genes, and genetically engineered cells comprising modified alleles of essential genes in various screening methods are also encompassed by the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 6 OF 13 USPATFULL on STN

AN 2003:237669 USPATFULL

TI PG-3 and biallelic markers thereof

IN Barry, Caroline, Les Ulis, FRANCE

Chumakov, Ilya, Vaux-le-Penil, FRANCE

09567863

PI US 2003165826 A1 20030904
AI US 2001-790289 A1 20010221 (9)
RLI Continuation-in-part of Ser. No. WO 2000-IB1098, filed on 28 Jul 2000,
UNKNOWN
PRAI US 1999-149941P 19990819 (60)
DT Utility
FS APPLICATION
LREP SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W.
41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 14935
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention concerns the genomic sequence and cDNA sequences of the
PG-3 gene. The invention also concerns biallelic markers of the PG-3
gene. The invention also concerns polypeptides encoded by the PG-3 gene.
The invention also deals with antibodies directed specifically against
such polypeptides that are useful as diagnostic reagents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 7 OF 13 USPATFULL on STN
AN 2003:227348 USPATFULL
TI Methods of using transporter-like molecules to treat pain and
pain-related disorders
IN Goodearl, Andrew D. J., Natick, MA, UNITED STATES
Silos-Santiago, Inmaculada, Cambridge, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003159162 A1 20030821
AI US 2003-385760 A1 20030311 (10)
RLI Division of Ser. No. US 2001-273, filed on 2 Nov 2001, GRANTED, Pat. No.
US 6573057 Continuation-in-part of Ser. No. US 2000-496692, filed on 2
Feb 2000, GRANTED, Pat. No. US 6313271 Division of Ser. No. US
1997-964127, filed on 6 Nov 1997, GRANTED, Pat. No. US 6277565
DT Utility
FS APPLICATION
LREP MILLENNIUM PHARMACEUTICALS, INC., 75 Sidney Street, Cambridge, MA, 02139
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 3436
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to OCT-3 polypeptides, nucleic acid molecules
encoding OCT-3, and uses thereof. OCT-3 is a protein that is expressed
in the plasma membrane of biological cells, across which it regulates
the transport of organic molecules.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 8 OF 13 USPATFULL on STN
AN 2003:213675 USPATFULL
TI Applications of parallel genomic analysis
IN Strathmann, Michael Paul, Mukilteo, WA, UNITED STATES
PI US 2003148313 A1 20030807
AI US 2002-209676 A1 20020730 (10)
RLI Continuation-in-part of Ser. No. US 1999-427834, filed on 26 Oct 1999,
GRANTED, Pat. No. US 6480791
DT Utility
FS APPLICATION
LREP Michael Strathmann, 5300 Harbour Pointe Blvd. 302-B, Mukilteo, WA, 98275
CLMN Number of Claims: 42

09567863

ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 5090

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides parallel methods for determining nucleotide sequences of polynucleotides associated with sample tags. Applications of sequence information acquired by these methods are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 9 OF 13 USPATFULL on STN

AN 2003:173169 USPATFULL

TI Identification of essential genes of *Aspergillus fumigatus* and methods of use

IN Jiang, Bo, Montreal, CANADA

Tishkoff, Daniel, San Diego, CA, UNITED STATES

Zamudio, Carlos, La Jolla, CA, UNITED STATES

Eroshkin, Alexey M., San Diego, CA, UNITED STATES

Hu, Wenqi, Dollard-des-Ormeaux, CANADA

Lemieux, Sebastien, Montreal, CANADA

PI US 2003119013 A1 20030626

AI US 2002-128714 A1 20020423 (10)

PRAI US 2001-316362P 20010831 (60)

US 2001-303899P 20010709 (60)

US 2001-295890P 20010605 (60)

US 2001-287066P 20010427 (60)

US 2001-285697P 20010423 (60)

DT Utility

FS APPLICATION

LREP PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711

CLMN Number of Claims: 43

ECL Exemplary Claim: 1

DRWN 1 Drawing Page(s)

LN.CNT 8519

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides nucleotide sequences, methods and compositions that enable the experimental determination as to whether any gene in the genome of *Aspergillus fumigatus* is essential, and whether that gene is required for virulence or pathogenicity. The methods involve the construction of genetic mutants in which a target gene is placed under conditional expression. The identification of essential genes and those genes critical to the development of virulent infections, provides a basis for the development of screens for new drugs against *Aspergillus fumigatus*.

The present invention further provides *Aspergillum fumigatus* genes that are essential and are potential targets for drug screening. The nucleotide sequence of the target genes can be used for various drug discovery purposes, such as expression of the recombinant protein, hybridization assay and construction of nucleic acid arrays. The uses of proteins encoded by the essential genes, and genetically engineered cells comprising modified alleles of essential genes in various screening methods are also encompassed by the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 10 OF 13 USPATFULL on STN

AN 2003:30278 USPATFULL

TI Releasable nonvolatile mass-label molecules

IN Monforte, Joseph A., Berkeley, CA, UNITED STATES

Becker, Christopher H., Palo Alto, CA, UNITED STATES

09567863

Pollart, Daniel J., Menlo Park, CA, UNITED STATES
Shaler, Thomas A., Menlo Park, CA, UNITED STATES
PI US 2003022225 A1 20030130
AI US 2002-202189 A1 20020722 (10)
RLI Continuation of Ser. No. US 1997-988024, filed on 10 Dec 1997, PENDING
PRAI US 1996-33037P 19961210 (60)
US 1997-46719P 19970516 (60)
DT Utility
FS APPLICATION
LREP Stephanie Seidman, Heller Ehrman White & McAuliffe LLP, 7th Floor, 4350
La Jolla Village Drive, San Diego, CA, 92122
CLMN Number of Claims: 122
ECL Exemplary Claim: 1
DRWN 35 Drawing Page(s)
LN.CNT 4085
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Releasable tag reagents for use in the detection and analysis of target
molecules, particular in **mass spectrometric** analyses
are provided. Also provided are methods of detection that employ
releasable tag reagents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 11 OF 13 USPATFULL on STN
AN 2002:298463 USPATFULL
TI Parallel methods for genomic analysis
IN Strathmann, Michael P., 1674 Euclid Ave., Berkeley, CA, United States
94709
PI US 6480791 B1 20021112
AI US 1999-427834 19991026 (9)
PRAI US 1998-105914P 19981028 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Brusca, John S.; Assistant Examiner: Moran, Marjorie
A.
LREP McCutchen, Doyle, Brown & Enersen, LLP, Shuster, Michael J.
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 10 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 4843
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides parallel methods for determining
nucleotide sequences and physical maps of polynucleotides associated
with sample tags. This information can be used to determine the
chromosomal locations of sample-tagged polynucleotides. In one
embodiment, the polynucleotides are derived from genomic DNA coupled to
insertion elements. As a result, the invention also provides parallel
methods for locating the integration sites of insertion elements in the
genome.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 12 OF 13 USPATFULL on STN
AN 2002:287523 USPATFULL
TI Methods of using transporter-like molecules to treat pain and
pain-related disorders
IN Goodearl, Andrew D.J., Natick, MA, UNITED STATES
Silos-Santiago, Inmaculada, Cambridge, MA, UNITED STATES
PA Millennium Pharmaceuticals, Inc., a Delaware corporation (U.S.
corporation)
PI US 2002160386 A1 20021031
US 6573057 B2 20030603

09567863

AI US 2001-273 A1 20011102 (10)
RLI Division of Ser. No. US 2000-496692, filed on 2 Feb 2000, GRANTED, Pat.
No. US 6313271 Division of Ser. No. US 1997-964127, filed on 6 Nov 1997,
GRANTED, Pat. No. US 6277565
DT Utility
FS APPLICATION
LREP MILLENNIUM PHARMACEUTICALS, INC., 75 Sidney Street, Cambridge, MA, 02139
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 2986
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to OCT-3 polypeptides, nucleic acid molecules
encoding OCT-3, and uses thereof. OCT-3 is a protein that is expressed
in the plasma membrane of biological cells, across which it regulates
the transport of organic molecules.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 13 OF 13 USPATFULL on STN
AN 2002:272840 USPATFULL
TI Activity-dependent cysteine protease profiling reagent
IN Bogyo, Matthew, Mill Valley, IA, UNITED STATES
Greenbaum, Doron, San Francisco, CA, UNITED STATES
PA The Regents of the University of California Office of Technology
Management (U.S. corporation)
PI US 2002150961 A1 20021017
AI US 2001-35451 A1 20011108 (10)
PRAI US 2000-266295P 20001110 (60)
US 2001-287993P 20010501 (60)
US 2001-308905P 20010730 (60)
US 2001-315117P 20010827 (60)
DT Utility
FS APPLICATION
LREP LAW OFFICES OF JONATHAN ALAN QUINE, P O BOX 458, ALAMEDA, CA, 94501
CLMN Number of Claims: 135
ECL Exemplary Claim: 1
DRWN 20 Drawing Page(s)
LN.CNT 3278
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Probes are provided having specificity for papain cysteine hydrolases
comprising an electrophile, exemplified by an epoxide, a hydrophobic
group for fitting into the hydrolase pocket and a moiety that provides
for detection and/or isolation. A variety of compound having hydrophobic
side chains from an oligopeptide are exemplified using fluorescers,
ligand members of specific binding pairs or radioactive labels for
detection and/or isolation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09567863

=> s synthes? (3a) set (2a) label?

L14 9 SYNTHES? (3A) SET (2A) LABEL?

=> s l14 and different label?

L15 0 L14 AND DIFFERENT LABEL?

=> s l14 and charg?

L16 7 L14 AND CHARG?

=> s l16 and mass spectromet?

L17 7 L16 AND MASS SPECTROMET?

=> dup rem l17

PROCESSING COMPLETED FOR L17

L18 7 DUP REM L17 (0 DUPLICATES REMOVED)

=> d l18 bib abs 1-7

L18 ANSWER 1 OF 7 USPATFULL on STN

AN 2003:237907 USPATFULL

TI Compositions and methods for the therapy and diagnosis of colon cancer

IN King, Gordon E., Shoreline, WA, UNITED STATES

Meagher, Madeleine Joy, Seattle, WA, UNITED STATES

Xu, Jiangchun, Bellevue, WA, UNITED STATES

Secrist, Heather, Seattle, WA, UNITED STATES

Jiang, Yuqiu, Kent, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003166064 A1 20030904

AI US 2002-99926 A1 20020314 (10)

RLI Continuation-in-part of Ser. No. US 2001-33528, filed on 26 Dec 2001,

PENDING Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001, PENDING

PRAI US 2001-302051P 20010629 (60)

US 2001-279763P 20010328 (60)

US 2000-223283P 20000803 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 8531

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 2 OF 7 USPATFULL on STN

AN 2003:106233 USPATFULL

TI Compositions and methods for the therapy and diagnosis of pancreatic cancer

IN Benson, Darin R., Seattle, WA, UNITED STATES

Kalos, Michael D., Seattle, WA, UNITED STATES

09567863

Lodes, Michael J., Seattle, WA, UNITED STATES
Persing, David H., Redmond, WA, UNITED STATES
Hepler, William T., Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003073144 A1 20030417

AI US 2002-60036 A1 20020130 (10)

PRAI US 2001-333626P 20011127 (60)

US 2001-305484P 20010712 (60)

US 2001-265305P 20010130 (60)

US 2001-267568P 20010209 (60)

US 2001-313999P 20010820 (60)

US 2001-291631P 20010516 (60)

US 2001-287112P 20010428 (60)

US 2001-278651P 20010321 (60)

US 2001-265682P 20010131 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 14253

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly pancreatic cancer, are disclosed. Illustrative compositions comprise one or more pancreatic tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 3 OF 7 USPATFULL on STN

AN 2002:272801 USPATFULL

TI Compositions and methods for the therapy and diagnosis of colon cancer

IN Stolk, John A., Bothell, WA, UNITED STATES

Xu, Jiangchun, Bellevue, WA, UNITED STATES

Chenault, Ruth A., Seattle, WA, UNITED STATES

Meagher, Madeleine Joy, Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2002150922 A1 20021017

AI US 2001-998598 A1 20011116 (9)

PRAI US 2001-304037P 20010710 (60)

US 2001-279670P 20010328 (60)

US 2001-267011P 20010206 (60)

US 2000-252222P 20001120 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 9233

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions

09567863

thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 4 OF 7 USPATFULL on STN
AN 2002:243051 USPATFULL
TI Compositions and methods for the therapy and diagnosis of ovarian cancer
IN Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002132237 A1 20020919
AI US 2001-867701 A1 20010529 (9)
PRAI US 2000-207484P 20000526 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 25718

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 5 OF 7 USPATFULL on STN
AN 2002:242791 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Secrist, Heather, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES (U.S. corporation)
PI US 2002131971 A1 20020919
AI US 2001-33528 A1 20011226 (10)
RLI Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001,
PENDING
PRAI US 2001-302051P 20010629 (60)
US 2001-279763P 20010328 (60)
US 2000-223283P 20000803 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300,
SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 8083

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

09567863

AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 6 OF 7 USPATFULL on STN
AN 93:50390 USPATFULL
TI DNA sequencing apparatus
IN Mills, Randell L., R.D. #2, Cochranville, PA, United States 19330
PI US 5221518 19930622
AI US 1991-744697 19910813 (7)
RLI Division of Ser. No. US 1987-120339, filed on 13 Nov 1987, now patented, Pat. No. US 5064754 which is a continuation-in-part of Ser. No. US 1984-681842, filed on 14 Dec 1984, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Housel, James C.; Assistant Examiner: Redding, David
LREP Lahive & Cockfield
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 13 Drawing Page(s)
LN.CNT 3464

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The DNA sequencing apparatus contains the following components. A first reaction vessel contains a reaction chamber into and out of which can be transferred reagents, reactants and reaction products. A device for separating individual oligonucleotides and polynucleotides on the basis of length, such as an electrophoretic unit, receives reaction products from the first reaction vessel. A second reaction vessel is designed for oxidizing pentose sugars. It comprises a reaction chamber having a device for transferring reactants and reagents into the reaction chamber and gaseous by-products of a reaction out of the reaction chamber. Separated oligonucleotides and polynucleotides can be selectably transferred from the separating device alternatively into the first or the second reaction vessel. The device also includes a second transfer device for transferring the gaseous by-products out of the second reaction vessel and a collection chamber for collecting the gaseous by-products. The collection chamber is in communication with the second transfer device. Finally, the apparatus contains an analyzer for analyzing the relative abundance of the components of the gaseous by-product by mass such as a **mass spectrometer**, the analyzer being in communication with a transfer device for transferring gaseous by-products from the collection chamber to the analyzer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 7 OF 7 USPATFULL on STN
AN 91:92453 USPATFULL
TI Genomic sequencing method
IN Mills, Randell L., R.D. #2, Cochranville, PA, United States 19330
PI US 5064754 19911112
AI US 1987-120339 19871113 (7)
RLI Continuation-in-part of Ser. No. US 1984-681842, filed on 14 Dec 1984, now abandoned
DT Utility
FS Granted

09567863

EXNAM Primary Examiner: Wax, Robert A.; Assistant Examiner: Zitomer, Stephanie W.

LREP Lahive & Cockfield

CLMN Number of Claims: 29

ECL Exemplary Claim: 1

DRWN 15 Drawing Figure(s); 13 Drawing Page(s)

LN.CNT 3716

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of determining the nucleotide sequence of a DNA molecule of arbitrary length as a single procedure by sequencing portions of the molecule in a fashion such that the sequence of the 5' end of the succeeding contiguous portion is sequenced as the 3' end of its preceeding portion is sequenced, for all portions, where the order of contiguous portions is determined by the sequence of the DNA molecule. Sequencing of the individual portions is accomplished by generating a family of polynucleotides under conditions which determine that the elements are partial copies of the portion and are of random nucleotide length on the 3' and 5' ends about a dinucleotide which is an internal reference point; determining the base composition and terminal base identity of each element of the family and solving for the sequence by a method of analysis wherein the base composition and terminal base data of each element is used to solve for a single base of the sequence by assigning the base to either the 5' or 3' end of the partial sequence about the internal reference point as the entire sequence of the portion is built up from a dinucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>